

WHAT IS CLAIMED IS:

1. An AC generator for a vehicle comprising:

a rotor having a rotary shaft, a field winding, and a slip ring provided on one end of the rotary shaft and electrically connected to the field winding;

a brush unit having a brush held in sliding contact with the slip ring, a spring for pressing the brush, a brush holder having a portion for receiving the brush, and a slip ring cover for covering the outer periphery of the slip ring; and

a suction/discharge port formed in a peripheral direction of the slip ring cover.

2. The AC generator as in claim 1, wherein the slip ring cover has a first wall portion formed in a shape of an arc in cross section perpendicular to the rotary shaft, and a second wall portion formed inside the first wall portion, and the suction/discharge port is formed between the first wall portion and the second wall portion.

3. The AC generator as in claim 2, wherein the first wall portion and the second wall portion overlap in the peripheral direction and covers the suction/discharge port.

4. The AC generator as in claim 2, wherein the brush holder partially extends to the first wall portion.

5. The AC generator as in claim 1, wherein the suction/discharge port generally faces toward a ground in a state where the AC generator is mounted on a vehicle.

5 6. The AC generator as in claim 1, wherein each of the brush holder and the slip ring cover has a cover portion for closing its end portion at one axial end side of the rotary shaft, and the brush holder is mounted on the slip ring cover in the state where these cover portions are made to abut against each other.

7. The AC generator as in claim 6, wherein engaging portions are formed on the cover portions and engaged with each other.

8. The AC generator as in claim 2, wherein the first wall portion has an opening made in a space communicating with the suction/discharge port, and a projection facing toward outside in the radial direction is formed along the edge of the opening.

9. The AC generator as in claim 1, wherein the slip ring cover has a side wall portion formed perpendicularly with respect to the direction of the rotary shaft, and at least one of a projection and a groove are formed on the side wall portion to divide area where the slip ring cover abuts against the brush holder into a plurality of portions.

10. The AC generator as in claim 1, wherein the brush holder and the slip ring cover have a cylindrical portion formed at a frame side end portion, and the cylindrical portion is fitted with a small gap in a center hole made in a frame to which the brush holder is fixed to pass the rotary shaft.

11. The AC generator as in claim 1, wherein an extending portion is formed on at least one of end portions of the slip ring cover in an axial direction to extend in a radial direction, and is inserted into a radial groove formed on the brush holder.

12. The AC generator as in claim 11, wherein the slip ring cover has a rib-shaped projection formed on a surface where the slip ring cover abuts against the brush holder and is made to abut against the brush holder.